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WATERING YOUR ROSES

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Roses are thirsty plants. They will perform vigorously only when their roots are supplied with adequate moisture. Although rose roots should be kept moist, the soil around them should not be saturated. Saturation excludes oxygen that is vital for the proper growth and function of the roots.

How Much Water Is Needed

Watering to the full depth of the roots is best. This means water should penetrate 18 to 24 inches into the soil. The amount of water required and how long the water must be applied depends upon the soil texture, structure and the permeability of the soil. Water moves faster in sandy soils, intermediate in a properly prepared soil and slow in clay soils.

To determine how far water has penetrated into your soil, apply water as you usually do. Next day, dig down 18 inches to determine how far the water has penetrated. If you watered for one-half hour and the water penetrated to 10 inches, then you must water for twice as long as to have water penetrate to the proper depth.

The soil should be uniform in nature to insure uniform water movement. If there are layers of different texture, these layers will form barriers to water movement and cause one part of the soil to be too dry and another part to be too wet. If any one layer is too wet, oxygen is excluded and root growth is poor. If one layer is too dry, poor growth results but if one layer is too wet and another too dry, the problem is even more complicated. So careful soil preparation before planting is essential to eliminate problems of this nature.

Water should not be applied at a greater rate than the soil can adsorb it. To do so, causes runoff which wastes the water and results in soil erosion. To determine how fast water will move into the soil requires an infiltrometer. A simple device that will give an approximate rate of infiltration is the use of a no. 10 can with top and bottom removed. Place this down into the soil so that two or three inches remains above the ground level. Place a no. 303 can, also with top and bottom removed, into the soil in the center of the no. 10 can, so at least 3 inches remains above ground, wet the entire area of soil inside of both cans and allow water to drain into soil then fill both cans with water and determine how long is required for the water from the smaller can to move into the soil. The number of inches of water infiltrated into the soil in the given length of time is permeability of the soil. This information plus the information from the water penetration test will tell how much water should be applied and how fast it will move into the soil.

How Often To Water

Water applied to the soil is lost by evaporation from the surface of the soil and by transpiration from the leaves. Evaporation from the soil can be reduced or eliminated by the use of mulch. Transpiration losses vary with air temperature, relative humidity, amount of sunlight and wind velocity. Losses from the soil also depends upon the texture of the soil. Sandy soils need water more often and clay soils less often. In the white sands of Hawaii, water is needed about every two to three days and in the clay soils every six to eight days, although it is difficult to generalize for soils and climatic conditions as variable as those found in Hawaii.

An easy check for need of water can be done by opening a small hole in the soil. Use a trowel shovel, soil sampling tube or similar device. Feel with your fingers to determine if the soil is moist (not wet) two inches below the surface. If it is moist, wait two or three days and check again, however if the soil is dry, water again for the usual amount of time, as determined above.

How To Apply Water

Water may be applied by using sprinklers, drip irrigation, flooding or sprayers on the end of the hose. The water should be applied gently so that it does

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to the regular fertilizer program. It is an excellent method of applying the micronutrients. The spray should have a sticker-spreader (a common household detergent works fine) to insure even application and adsorption of plant nutrients. Spray both surfaces of the leaf thoroughly until solution just begins to drip off. Regular dry fertilizers are not suitable for foliar sprays.

When To Fertilize

Fertilizer properly when preparing the soil for planting. This greatly reduces the problem of getting nutrients to the plant roots and maintaining an adequate supply of nutrients. Apply fertilizer just after the plants have completed one burst of bloom. This provides the needed nutrients for new growth and next bloom. Then make an application every six to eight weeks. You may apply every two, three or four weeks but apply less fertilizer each time. You may alternate with dry, liquid and foliar feeding if you follow this method.

A consistent program of fertilization is best. Follow recommendations on the package carefully as fertilizers in any form can cause damage to plants if used incorrectly. If using foliar sprays, do not spray if temperature is 90°F or above as this may cause leaf burn even though you follow all directions carefully.

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